

In the Claims:

Please cancel claims 2 and 9, without prejudice, and amend claims 1, 8 and 12 as follows:

1. (Currently amended) A manufacturing method of a liquid crystal display device comprising two substrates sandwiching a liquid crystal having spontaneous polarization; and electrodes, formed on the substrates, for applying a voltage to the liquid crystal, the liquid crystal showing a monostable state in which an average molecular axis of a director of liquid crystal molecules is aligned in a single direction when no voltage is applied, said method comprising the steps of:

heating the liquid crystal; and

applying an electric field to said liquid crystal with electric field strength of more than  $4 \text{ V}/\mu\text{m}$  ~~$5 \text{ V}/\mu\text{m}$~~  in a vicinity of a transition temperature from a higher temperature phase than chiral smectic C phase to the chiral smectic C phase in an alignment treatment which is performed to obtain the monostable state after heating.

2. (Cancelled)

3. (Original) The manufacturing method of a liquid crystal display device of claim 1, wherein a temperature range of the vicinity of the transition temperature includes a temperature range of  $\pm 2^\circ\text{C}$  from the transition temperature.

4. (Original) The manufacturing method of a liquid crystal display device of claim 1, wherein the liquid crystal shows a phase sequence, either isotropic liquid phase – cholesteric phase – chiral smectic C phase, isotropic liquid phase – chiral nematic phase – chiral smectic C phase, or isotropic liquid phase – cholesteric phase – smectic A phase – chiral smectic C phase, from a high temperature side to a low temperature side.

5. (Original) A liquid crystal display device manufactured by the manufacturing method of a liquid crystal display device of claim 1, comprising alignment films formed on the two substrates, respectively, wherein rubbing directions of said alignment films are equal to each other.

6. (Original) The liquid crystal display device of claim 5, wherein a pretilt angle of said alignment films is not more than 2°.

7. (Original) A liquid crystal display device manufactured by the manufacturing method of a liquid crystal display device of claim 1, comprising a back-light which is driven by a field-sequential color scheme, wherein a data-writing scanning voltage and a data-erasure scanning voltage are applied between the electrodes.

8. (Currently amended) A manufacturing method of a liquid crystal display device comprising a pixel substrate having pixel electrodes; a common substrate with a

common electrode placed to face said pixel substrate; data lines for supplying a pixel voltage to be applied to said pixel electrodes; switching elements for controlling connection and disconnection between said pixel electrodes and said data lines by ON and OFF; scanning lines for supplying a control voltage for controlling ON and OFF of said switching elements; and a liquid crystal with spontaneous polarization sandwiched between said pixel substrate and said common substrate, wherein said liquid crystal shows a monostable state in which an average molecular axis of a director of liquid crystal molecules is aligned in a single direction when no voltage is applied, said method comprising the steps of:

heating the liquid crystal; and  
applying the control voltage for controlling the state of said switching elements to said scanning lines and applying a different DC voltage to said data lines and said common electrode in a vicinity of a transition temperature from a higher temperature phase than chiral smectic C phase to the chiral smectic C phase in an alignment treatment which is performed to obtain the monostable state after heating;

wherein electric field strength to be applied to the liquid crystal by the voltage difference between said data lines and said common electrode is more than  $4V/\mu m$ ~~5~~  $V/\mu m$ .

9. (Cancelled)

10. (Previously presented) A manufacturing method of a liquid crystal display device comprising a pixel substrate having pixel electrodes; a common substrate with

a common electrode placed to face said pixel substrate; data lines for supplying a pixel voltage to be applied to said pixel electrodes; switching elements for controlling connection and disconnection between said pixel electrodes and said data lines by ON and OFF; scanning lines for supplying a control voltage for controlling ON and OFF of said switching elements; and a liquid crystal with spontaneous polarization sandwiched between said pixel substrate and said common substrate, wherein said liquid crystal shows a monostable state in which an average molecular axis of a director of liquid crystal molecules is aligned in a single direction when no voltage is applied, said method comprising the steps of:

heating the liquid crystal; and

applying the control voltage for controlling the state of said switching elements to said scanning lines and applying a different DC voltage to said data lines and said common electrode in a vicinity of a transition temperature from a higher temperature phase than chiral smectic C phase to the chiral smectic C phase in an alignment treatment which is performed to obtain the monostable state after heating;

wherein said control voltage for controlling the state of said switching elements and the DC voltage applied to said data bus lines are at equal potential.

11. (Previously presented) The manufacturing method of a liquid crystal display device of claim 10,

wherein the potential of said control voltage for controlling the state of said switching elements and the DC voltage applied to said data bus lines is lower than a potential of said common electrode.

12. (Currently amended) The manufacturing method of a liquid crystal display device of claim 10,

wherein the ~~potential of said control voltage for controlling the state of said switching elements~~ and the DC voltage applied to ~~said data lines is~~ are zero.